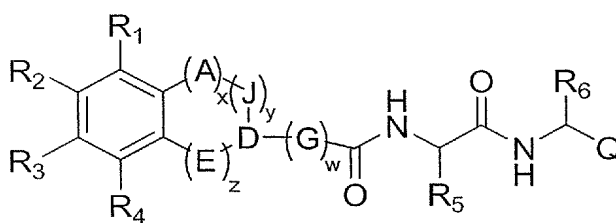


### Listing of the Claims

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of claims in the application.

1. **(Currently Amended)** A compound having the structure **(I)**:



**(I)**

or pharmaceutically acceptable derivative thereof;

wherein each occurrence of A, J, E, D and G is independently CR<sub>A</sub>, CR<sub>A</sub>R<sub>B</sub>, C=O, O, S, NR<sub>A</sub>, or N, wherein each occurrence of R<sub>A</sub> and R<sub>B</sub> is independently hydrogen, a protecting group, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

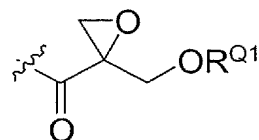
A and J, J and D, D and E, and D and G are each independently linked by a single or double bond as valency permits;

w, x, y and z are each independently 0, 1, 2, 3, 4, 5 or 6, but the sum of x, y and z is 2-6 and the sum of x and y is 1-6;

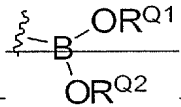
R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently hydrogen, halogen, -CN, -OR<sub>C</sub>, -SR<sub>C</sub>, -NR<sub>C</sub>R<sub>D</sub>, -(C=O)R<sub>C</sub> or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, wherein each occurrence of R<sub>C</sub> and R<sub>D</sub> is independently hydrogen, a protecting group, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or R<sub>C</sub> and R<sub>D</sub>, taken together, form a heteroalicyclic or heteroaryl moiety; or wherein any two adjacent groups R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub>, taken together, form an alicyclic or heteroalicyclic moiety, or an aryl or heteroaryl moiety;

R<sub>5</sub> and R<sub>6</sub> are each independently an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; and

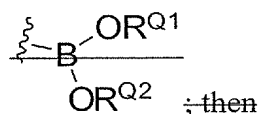
Q is an epoxycarbonyl moiety having the structure:

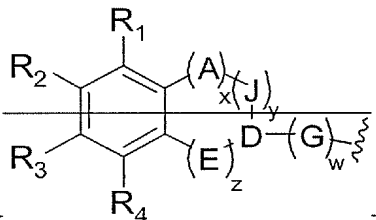
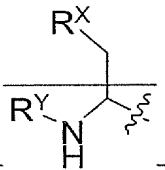


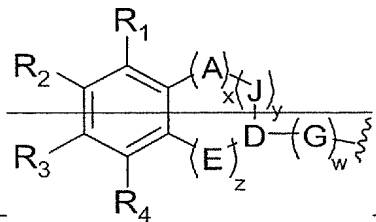
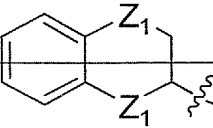
, or a boron-

containing moiety having the structure: ; wherein wherein  $R^{Q1}$  and  $R^{Q2}$  are each independently hydrogen, an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or an oxygen protecting group, or  $R^{Q1}$  and  $R^{Q2}$ , taken together, form a heteroalicyclic moiety; or, when Q is an epoxycarbonyl moiety,  $R^{Q1}$  may also be or a prodrug moiety;

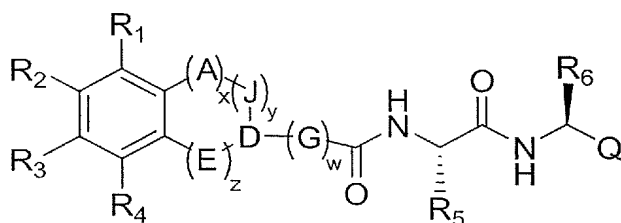
with the proviso that, when Q is a boron-containing moiety having the structure



- (i)  is not  where  $R^*$  is aryl or heteroaryl and  $R^Y$  is aryl, heterocyclyl, alkylcarbonyl or heterocyclylalkylcarbonyl;
- (ii) if D is N or CH, and (a) w is 0, or (b) w is 1 and G is  $\text{CH}(\text{OH})\text{CH}_2$ , then neither occurrence of J or E attached to D, nor the occurrence of A attached to D when y is 0, is a nitrogen atom substituted with hydrogen or a nitrogen protecting group typically employed in peptide synthesis;
- (iii) when w is other than 0, then the occurrence of G attached to D is not N or CH substituted with  $\text{NR}^*\text{R}^Y$  where  $R^*$  is hydrogen or alkyl and  $R^Y$  is hydrogen or a nitrogen protecting group typically employed in peptide synthesis; and/or

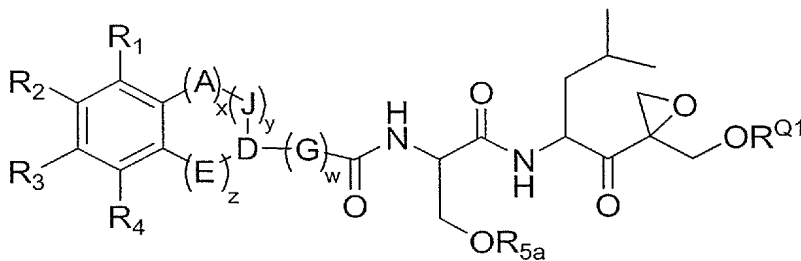
- (iv)  is not ; wherein  $Z^1$  is O or S.

2. **(Original)** The compound of claim 1, wherein the compound has the structure:



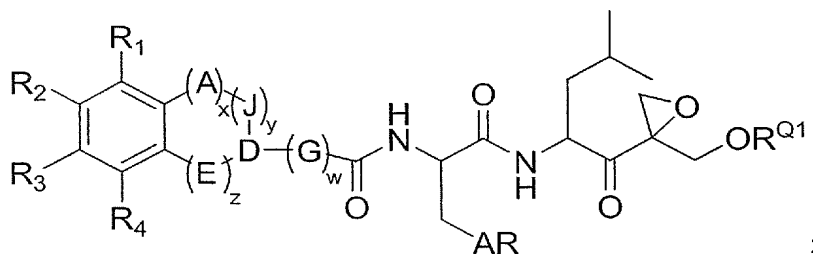
- 3-4. **(Canceled).**

5. **(Previously Presented)** The compound of claim 1, wherein R<sub>5</sub> is -CH<sub>2</sub>OR<sub>5a</sub> and the compound has the structure:



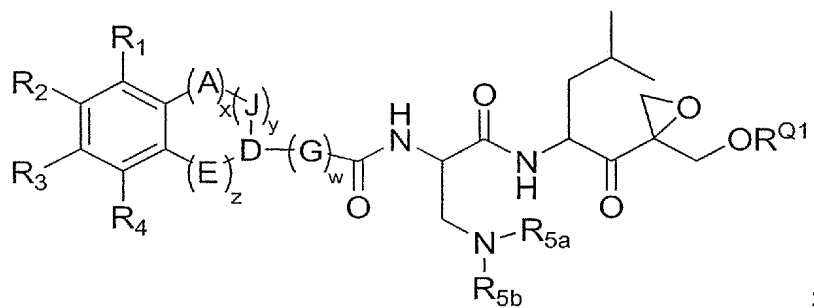
wherein R<sub>5a</sub> is hydrogen, an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, an oxygen protecting group or a prodrug moiety.

6. **(Previously Presented)** The compound of claim 1, wherein R<sub>5</sub> is aryl or heteroaryl and the compound has the structure:



wherein AR is an aryl or heteroaryl moiety.

7. **(Previously Presented)** The compound of claim 1, wherein  $R_5$  is  $-\text{CH}_2\text{NR}_{5a}\text{R}_{5b}$  or heteroaryl and the compound has the structure:



wherein  $R_{5a}$  and  $R_{5b}$  are each independently hydrogen, a nitrogen protecting group, an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or a prodrug, or  $R_{5a}$  and  $R_{5b}$ , taken together, form a heteroalicyclic or heteroaryl moiety.

Claims 8-12. **(Canceled).**

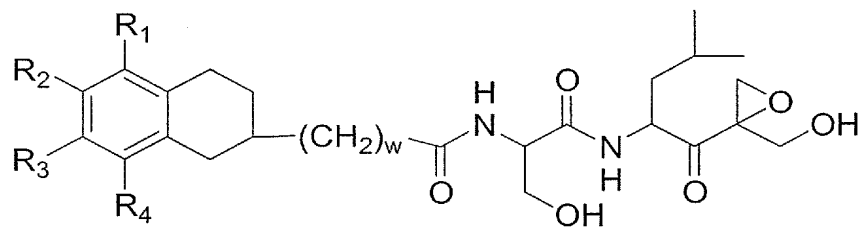
13. **(Previously Presented)** The compound of claim 1, wherein  $x, y$  and  $z$  are each 1, and  $A, J, D,$  and  $E$  are each  $\text{CH}_2$ .

14-15. **(Canceled).**

16. **(Previously Presented)** The compound of claim 1, wherein  $G$  is  $\text{CH}_2$  and  $w$  is 0, 1, or 2.

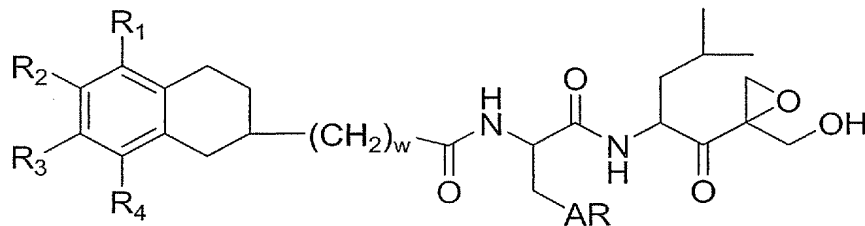
17. **(Previously Presented)** The compound of claim 1, wherein  $x, y$  and  $z$  are each 1;  $A, J, D,$  and  $E$  are each  $\text{CH}_2$ ;  $G$  is  $\text{CH}_2$  and  $w$  is 0, 1, or 2.

18. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



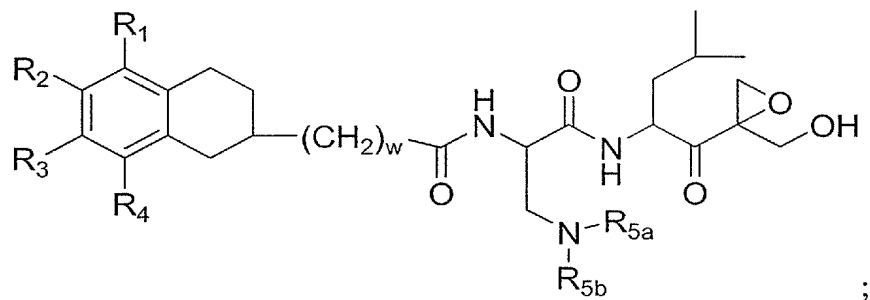
wherein w is 0, 1 or 2; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently hydrogen, OR<sub>C</sub>, halogen, or NR<sub>C</sub>R<sub>D</sub>, wherein each occurrence of R<sub>C</sub> and R<sub>D</sub> is independently hydrogen or lower alkyl.

19. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



wherein AR is an aryl or heteroaryl moiety; w is 0, 1 or 2; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently hydrogen, OR<sub>C</sub>, halogen, or NR<sub>C</sub>R<sub>D</sub>, wherein each occurrence of R<sub>C</sub> and R<sub>D</sub> is independently hydrogen or lower alkyl.

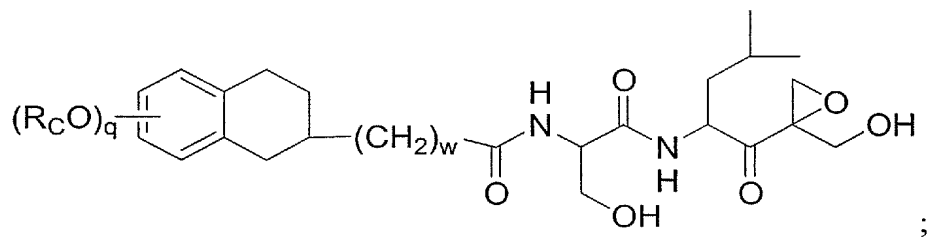
20. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



wherein R<sub>5a</sub> and R<sub>5b</sub> are each independently hydrogen, a nitrogen protecting group, an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or a prodrug, or R<sub>5a</sub> and R<sub>5b</sub>, taken together, form a heteroalicyclic or heteroaryl moiety; w is 0, 1 or 2; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are each independently hydrogen, OR<sub>C</sub>, halogen, or NR<sub>C</sub>R<sub>D</sub>, wherein each occurrence of R<sub>C</sub> and R<sub>D</sub> is independently hydrogen or lower alkyl.

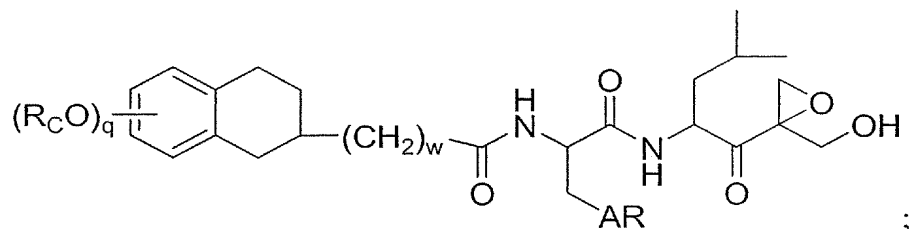
21-23. **(Canceled)**.

24. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



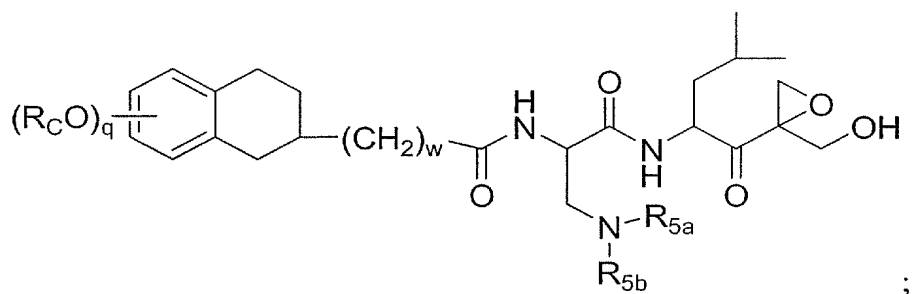
wherein w is 0, 1 or 2, each occurrence of R<sub>C</sub> is independently lower alkyl, and q is 0, 1, 2, 3 or 4.

25. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



wherein  $AR$  is an aryl or heteroaryl moiety;  $w$  is 0, 1 or 2, each occurrence of  $R_C$  is independently lower alkyl, and  $q$  is 0, 1, 2, 3 or 4.

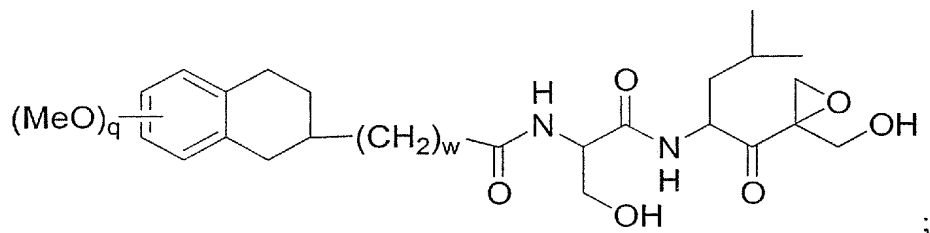
26. **(Original)** The compound of claim 1, wherein  $x$ ,  $y$  and  $z$  are each 1;  $A$ ,  $J$ ,  $D$ , and  $E$  are each  $CH_2$  and the compound has the structure:



wherein  $R_{5a}$  and  $R_{5b}$  are each independently hydrogen, a nitrogen protecting group, an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or a prodrug, or  $R_{5a}$  and  $R_{5b}$ , taken together, form a heteroalicyclic or heteroaryl moiety;  $w$  is 0, 1 or 2, each occurrence of  $R_C$  is independently lower alkyl, and  $q$  is 0, 1, 2, 3 or 4.

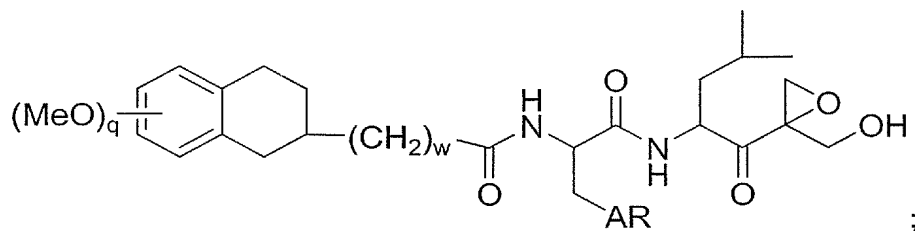
27-29. **(Canceled).**

30. **(Original)** The compound of claim 1, wherein  $x$ ,  $y$  and  $z$  are each 1;  $A$ ,  $J$ ,  $D$ , and  $E$  are each  $CH_2$  and the compound has the structure:



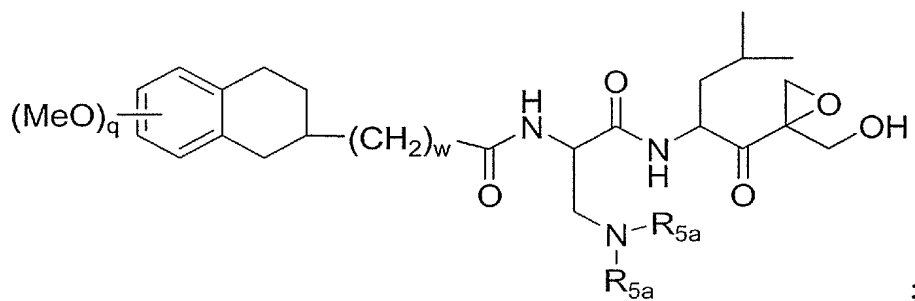
wherein w is 0, 1 or 2; and q is 0, 1, 2, 3 or 4.

31. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



wherein AR is an aryl or heteroaryl moiety; w is 0, 1 or 2; and q is 0, 1, 2, 3 or 4.

32. **(Original)** The compound of claim 1, wherein x, y and z are each 1; A, J, D, and E are each CH<sub>2</sub> and the compound has the structure:



wherein R<sub>5a</sub> and R<sub>5b</sub> are each independently hydrogen, a nitrogen protecting group, an



aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or a prodrug, or  $R_{5a}$  and  $R_{5b}$ , taken together, form a heteroalicyclic or heteroaryl moiety; w is 0, 1 or 2; and q is 0, 1, 2, 3 or 4.

33-37. **(Canceled).**

38. **(Currently Amended)** The compound of any one of claims 1, 2, ~~or 5-7, and 10-12~~, wherein x, y and z are each 1 and A-J-D-E together represent  $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-$ .

39. **(Currently Amended)** The compound of any one of claims 1, 2, ~~or 5-7, and 10-12~~, wherein x is 0, y and z are each 1 and J-D-E together represent  $-\text{CH}_2-\text{CH}_2-\text{CH}_2-$ .

40. **(Currently Amended)** The compound of any one of claims 1, 2, ~~or 5-7, and 10-12~~, wherein x is 0, z is 0 and E is absent and J-D together represents  $-\text{CH}_2-\text{CH}_2-$ .

41. **(Currently Amended)** The compound of any one of claims 1, 2, ~~or 5-7, and 10-12~~, wherein x, y and z are each 1 and A-J-D-E together represent  $-\text{N}=\text{CH}-\text{CH}=\text{N}-$ .

42. **(Currently Amended)** The compound of any one of claims 1, 2, ~~or 5-7, and 10-12~~, wherein x, y and z are each 1 and A-J-D-E together represent  $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-$  and G is  $\text{CH}_2$  and w is 0, 1 or 2.

43. **(Previously Presented)** The compound of claim 1, wherein  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each independently hydrogen, halogen, protected or unprotected hydroxyl, protected or unprotected thiol, protected or unprotected amino, alkyl, alkoxy, thioalkyl, mono- or di-substituted alkylamino, or wherein any two adjacent groups  $R_1$ ,  $R_2$ ,  $R_3$  or  $R_4$ , taken together are a cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety,

whereby each of the alkyl moieties is independently substituted or unsubstituted, linear or branched, cyclic or acyclic, and each of the aryl and heteroaryl moieties is independently substituted or unsubstituted.

44. **(Previously Presented)** The compound of claim 1, wherein  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each independently hydrogen or lower alkoxy.

45. **(Previously Presented)** The compound of claim 1, wherein  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each independently hydrogen or methoxy.

46. **(Previously Presented)** The compound of claim 1, wherein  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are each methoxy.

47. **(Previously Presented)** The compound of claim 1, wherein  $R_1$  is hydrogen and each of  $R_2$ ,  $R_3$  and  $R_4$  are independently lower alkoxy.

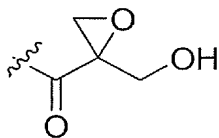
48. **(Previously Presented)** The compound of claim 1, wherein  $R_1$  is hydrogen and each of  $R_2$ ,  $R_3$  and  $R_4$  are methoxy.

49. **(Previously Presented)** The compound of claim 1, wherein  $R_5$  is alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, cycloalkynyl,  $C_{1-6}OR_{5a}$ ,  $C_{1-6}NR_{5a}R_{5b}$ , aryl or heteroaryl; wherein  $R_{5a}$  and  $R_{5b}$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl,  $-C(NH_2)=N(NO_2)$ ,  $-C(=O)OR_{5c}$ ,  $-C(=O)R_{5c}$  or a protecting group; wherein  $R_{5c}$  is hydrogen, alkyl, alkenyl, alkynyl, aryl or heteroaryl.

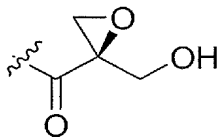
50. **(Previously Presented)** The compound of claim 1, wherein  $R_5$  is alkyl, cycloalkyl,  $-CH_2OR_{5a}$ ,  $-CH_2NR_{5a}R_{5b}$ ,  $-CH_2$ aryl or  $-CH_2$ heteroaryl; wherein  $R_{5a}$  and  $R_{5b}$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl,  $-C(NH_2)=N(NO_2)$ ,  $-C(=O)OR_{5c}$ ,  $-C(=O)R_{5c}$  or a protecting group; wherein  $R_{5c}$  is hydrogen, alkyl, alkenyl, alkynyl, aryl or heteroaryl.

51. **(Previously Presented)** The compound of claim 1, wherein  $R_5$  is alkyl, cycloalkyl,  $\text{CH}_2\text{OR}_{5a}$ ,  $\text{CH}_2\text{NR}_{5a}\text{R}_{5b}$  or substituted or unsubstituted  $-\text{CH}_2\text{Ph}$ ; wherein  $R_{5a}$  and  $R_{5b}$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl,  $-\text{C}(\text{NH}_2)=\text{N}(\text{NO}_2)$ ,  $-\text{C}(=\text{O})\text{OR}_{5c}$ ,  $-\text{C}(=\text{O})\text{R}_{5c}$  or a protecting group; wherein  $R_{5c}$  is hydrogen, alkyl, alkenyl, alkynyl, aryl or heteroaryl.
52. **(Previously Presented)** The compound of claim 1, wherein  $R_5$  is  $-\text{CH}_2\text{OH}$  or benzyl.
53. **(Previously Presented)** The compound of claim 1, wherein  $R_6$  is alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, cycloalkynyl, aryl or heteroaryl.
54. **(Previously Presented)** The compound of claim 1, wherein  $R_6$  is lower alkyl or aryl.
55. **(Previously Presented)** The compound of claim 1, wherein  $R_6$  is  $-\text{CH}_2\text{CH}(\text{CH}_3)_2$ .
56. **(Canceled).**

57. **(Previously Presented)** The compound of claim 1, 2, 3 or 4, wherein Q has the structure:



58. **(Previously Presented)** The compound of claim 57, wherein Q has the structure:



- 59-62. **(Canceled).**

63. **(Previously Presented)** A pharmaceutical composition comprising a compound of claim 1; and

a pharmaceutically acceptable carrier or diluent, and optionally further comprising an additional therapeutic agent.

64. **(Original)** The pharmaceutical of claim 63 wherein the compound is present in an amount effective to exert an antiproliferative and/or anticancer effect.

65. **(Original)** The pharmaceutical of claim 63 wherein the compound and the additional therapeutic agent are present in an amount effective to exert an antiproliferative and/or anticancer effect.

66. **(Original)** The pharmaceutical of claim 63 wherein the compound is present in an amount effective to exert an anti-inflammatory effect.

67. **(Original)** The pharmaceutical of claim 63 wherein the compound and the additional therapeutic agent are present in an amount effective to exert an anti-inflammatory effect.

68. **(Previously Presented)** A method for treating cancer comprising:  
administering to a subject in need thereof a therapeutically effective amount of a compound of claim 1; and  
optionally further administering an additional therapeutic agent.

69. **(Original)** The method of claim 68, wherein the method is used to treat prostate, breast, colon, bladder, cervical, skin, testicular, kidney, ovarian, stomach, brain, liver, pancreatic or esophageal cancer or lymphoma, leukemia, or multiple myeloma.

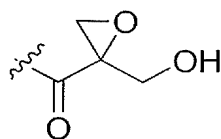
70. **(Original)** The method of claim 68, wherein the cancer is a solid tumor.

71-77. **(Canceled).**

78. **(Currently Amended)** The compound of ~~any one of claims 2, 3 and 71-77~~, wherein D is absent and z is 0.

79-80. **(Canceled).**

81. **(Previously Presented)** The compound of ~~any one of claims 2, 3 and 71-77~~, wherein Q is a moiety having the structure:



82. **(Previously Presented)** The compound of claim 81, wherein Q is a moiety having the structure:

